

Appln. No. 09/818,765
Amendment filed June 2, 2004
Response to Office Action dated December 3, 2003

REMARKS

Claims 2-4 and 11-15 are pending in this application. Claims 14 and 15 are newly-presented and claims 2-4 and 11-13 have been rejected. Claims 2-4, 14 and 15 are independent.

It will be appreciated that new claims 14 and 15 provide that the first opening is formed in a part of the flexible bag portion and the second opening is formed in a port attached to another part of the flexible bag portion. The bag is charged with ink only through the second opening in the port.

**The Rejections Under
35 U.S.C. § 102(e)**

Claims 2 and 11 have been rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 5,732,751 to Schmidt et al. Applicant respectfully traverses this rejection and submits the following arguments in support thereof.

As set out in claim 2, the present invention is directed to a method of refilling a spent ink bag for use in an ink jet recorder. This method involves providing the spent ink bag (this could be done either by removing the ink bag from the ink cartridge case or by providing the ink bag while still within that ink cartridge case), the spent ink bag having an ink supply port that is selectively engageable with the ink jet recorder, positioning the spent ink bag, inserting an ink needle into the ink supply port of the spent ink bag, and discharging ink from the spent ink bag only through the port. After the discharging step comes a step of charging the spent ink bag only through the port with a specified quantity of ink.

Schmidt differs from and so does not even suggest the claimed invention for a number of reasons.

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Schmidt teaches ink is refilled through the fill port 52 (see col. 11, lines 1-5), which is entirely different from and in no way suggestive of filling through the ink supply port, as is claimed¹. For this reason alone the claimed invention patentably distinguishes over Schmidt.

The Office Action, at the top of page 3, contends that Schmidt teaches discharging ink from the spent bag through the port. However, the portion of Schmidt cited in the Office Action only describes the evacuation of gas from the ink cartridge prior to its first filling with ink. There is no mention of the clearing of remaining ink from a spent bag during a refilling procedure. For this reason as well the claimed invention patentably distinguishes over the cited art.

According to the Office Action, Schmidt teaches charging the evacuated bag through the fill port that also is used for evacuation. Even if that is true it remains that Schmidt teaches the refilling is through the fill port 52, not the ink supply port (which, in Schmidt, would be the fluid outlet 28) through which ink flow from the cartridge to the ink jet printer. For this reason as well the claimed invention patentably distinguishes over Schmidt.

A reference which does not identically disclose all the features of a claim cannot anticipate that claim. See M.P.E.P. § 2131.

¹ Insofar as Schmidt states at col. 10, line 67, through col. 11, line 5, "it is contemplated that the foregoing filling process could also be used to refill a supply 20. The plug 54 would be moved (inwardly or outwardly) from the port 52 to permit the refilling. The unplugged, empty chamber can thereafter be evacuated and filled as described above", it should be understood that the supply 20 refers to the ink cartridge, not an ink supply port. See col. 2, lines 10-21.

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Given the numerous differences between the claimed invention and Schmidt, Schmidt does not identically disclose all the features of the claimed invention. Accordingly, Schmidt does not anticipate or even suggest this invention.

As for claim 11, claim 11 depends from and so incorporates by reference all the features of claim 2, including those features just shown to avoid Schmidt. Claim 11 therefore avoids Schmidt at least for the same reasons as already have been given with regard to claim 2.

In addition, as noted with regard to claim 2, Schmidt does not teach a discharging step as claimed. Therefore, since Schmidt does not teach discharging, Schmidt also cannot teach performing discharging after the removing step, as specifically recited in claim 11.

For all the foregoing reasons, favorable consideration and withdrawal of this rejection are respectfully requested.

Claims 3 and 12 have been rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 5,675,367 to Scheffelin et al. Applicant respectfully traverses this rejection and submits the following arguments in support thereof.

Applicants' invention, as set out in claim 3, involves a method of refilling an ink bag for use in an ink jet recorder. The ink bag has a flexible bag portion with an interior and is initially filled with ink through a first opening in the bag that is sealed after the ink bag is initially filled. The method includes the steps of providing an ink bag, the ink bag having a second opening that is different than the first opening, the second opening being an ink supply port selectively engageable with the ink jet recorder, positioning the ink bag, advancing a tip of an ink needle into the interior of the flexible bag portion by passing the tip of the needle through the second opening, and charging the ink bag only through the second opening with a specified quantity of ink.

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It is respectfully submitted that the Office Action does not accurately summarize the claimed invention. For example, the Office Action states that claim 3 provides a step of removing the ink bag, even though such language was deleted from the claim in the previous Amendment submitted on October 7, 2003.

This rejection is also traversed on grounds the Office Action does not give proper weight to all claim language. Specifically, Applicants note that the Office Action does not take into account the claim language characterizing the different openings of the ink bag.² Even though claim 3 is a method claim, which defines certain actions, those actions here involve structure of the device being processed (in the same way, a claim to a chemical method involves the types of chemicals used). Accordingly, Applicants submit that proper and necessary to take into account the structural aspects of claim 3 (in this regard, claim 3 has been revised to include the step of providing an ink bag with the two types of openings). When such structural aspects of the claim are taken into consideration, it is clear that claim 3 patentably distinguishes over Scheffelin, since Scheffelin has no such structure. Accordingly, Scheffelin could not anticipate or even suggest the invention now claimed.

Refilling the ink bag through the ink supply port provides at least the following two benefits. First, refilling in this manner simplifies the construction of the ink reservoir, since it is not necessary to provide a dedicated, additional refill port such as refill port 26 shown in Scheffelin. Second, by refilling through the ink supply port the undesirable introduction of air can be suppressed.

² The Office Action suggests that the claim language in question involves an intended use of the second opening. That is not accurate, however. Such language describes the type of structure which is employed in the claimed invention, and so that language is entitled to patentable weight.

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Claim 12 depends from and so incorporates by reference all the features of claim 3, including those features just shown to avoid the cited art. Claim 12 therefore patentably distinguishes over Scheffelin at least for the same reasons as claim 3.

Favorable consideration and withdrawal of this rejection are therefore respectfully requested.

**The Rejection Under
35 U.S.C. § 103**

Claims 3, 4, 12 and 13 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over German Patent No. 34 01 071 to Vollert in view of U.S. Patent No. 5,359,356 to Ecklund. Applicant respectfully traverses this rejection and submits the following arguments in support thereof.

Claim 3 already has been summarized in connection with the rejection of that claim under 35 U.S.C. § 102(e), and so for the sake of brevity that claim will not be summarized again. Rather, reference is made to the foregoing discussion of claim 3.

As set out in claim 4, this invention also involves a method of refilling an ink bag for use in an ink jet recorder, the ink bag being initially filled with ink through a first opening in the bag that is sealed after the ink bag is initially filled. This method includes the steps of providing the ink bag, the ink bag having, disposed on a line, the first opening and an opposing second opening that is an ink supply port selectively engageable with an ink jet recorder. Other steps are positioning the ink bag, advancing the tip of an ink needle along the line and through the second opening in the ink bag, and charging the ink bag only through the second opening with a specified quantity of ink.

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Before discussing the specifics of this rejection, Applicants wish to point out that, for clarity, and to avoid any mischaracterization, a complete English translation of Vollert is being submitted by way of the following Supplemental Information Disclosure Statement. It is respectfully submitted that this complete translation supports the patentability of the claimed invention, as explained in detail below.

Vollert teaches initial and subsequent filling of each ink tank occurs through just a single opening. Accordingly, Vollert in no way suggests at least those aspects of the present invention which involving providing a spent ink bag having an ink supply port.

The Examiner's reliance upon Ecklund also does not appear to be well-taken. Applicants respectfully submit that Ecklund teaches an ink jet tank structure in which a disposable flexible bladder containing ink is placed in a permanent cup member. The bladder is discarded when it has been exhausted (see col. 6, lines 56-62). This, it will be appreciated, is in no way suggestive of the invention as now claimed.

It should be noted that where, as here, a reference is applied in a rejection based upon 35 U.S.C. § 103, the teachings of that reference as a whole must be considered, including portions of the reference that teach away from the invention. See M.P.E.P. § 2141.02. When that is done here, Applicants submit that one skilled in the art seeking to improve upon methods for refilling reusable ink bags such as that of Vollert would not look to Ecklund because Ecklund only uses each ink bag once. Consequently, Ecklund is not part of the prior art that would be considered by one seeking to solve the problems which the present invention overcomes.

Even if Ecklund were considered, one skilled in the art only would consider Ecklund's permanent cup member and other structure surrounding the bladder to be comparable

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to the shell of an ink cartridge containing an ink bag. Accordingly, one skilled in the art would conclude Ecklund teaches that the ink bag should be **discarded, not refilled**, and that a fresh, new ink bag be placed into the shell of the ink cartridge.

Applicants also respectfully traverse the justification in the Office Action for combining these two references, which asserted that a bag with two openings, like Ecklund, is equivalent to a bag with just one opening, like Vollert. Applicants respectfully submit that here, equivalence depends upon the manner in which the bags are used and that those skilled in the art would not consider the two types of bags to be equivalent - Vollert teaches a refillable single-opening bag meant to be used over and over, whereas Ecklund teaches a single-use two-opening bag to be discarded when exhausted.

Since the bags are not equivalent for the purposes of the present invention, there is no basis for combining the references.

It should be noted that new claims 14 and 15, which correspond respectively to claims 3 and 4, specify that the first opening is formed by a part of the flexible bag portion and the second opening is formed in a port that is attached to another part of the flexible bag portion. Applicants respectfully submit that these aspects of the invention are no way even suggested by the cited references.

Lastly, claims 12 and 13 depend, respectively, from claims 3 and 4, and so incorporate by reference all the features of those base claims. Claims 12 and 13 therefore patentably distinguish over the cited art at least for the same reasons as already have been given for claims 3 and 4.

For all the foregoing reasons, favorable consideration and withdrawal of this rejection are respectfully requested.

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SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

In compliance with the duty of disclosure under 37 C.F.R. § 1.56 and pursuant to 37 C.F.R. §§ 1.97 and 1.98, the Examiner's attention is directed to the document listed on the enclosed Information Disclosure Statement by Applicant form (PTO/SB/08A).

This Supplemental Information Disclosure Statement is being filed to submit an English translation of German Patent Publication No. 34 01 701 to Vollert, which is one of the references cited and applied in the outstanding Office Action. Accordingly, no fee is believed to be due.

If, however, the Commissioner deems any fee to be due in connection with this Supplemental Information Disclosure Statement, the Commissioner is authorized to charge that fee to Deposit Account 19-4709.

It is respectfully requested that the above information be considered by the Examiner and that a copy of the enclosed Information Disclosure Statement by Applicant form (PTO/SB/08A) be returned indicating that such information has been considered.

CONCLUSION

Applicant respectfully submits that all outstanding rejections have been addressed and are now overcome. Applicant further submits that all claims pending in this application are patentable over the prior art. Reconsideration and withdrawal of those rejections is respectfully requested.

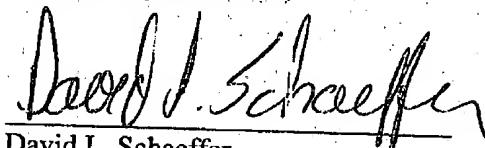
Other than the fee for the required Petition for Extension of Time and the fee for new claims 14 and 15, no fees are believed to be due in this application. Nevertheless, the

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Commissioner is authorized to charge any fees that are now or hereafter required for the prosecution of this application to deposit account no. 19-4709.

Favorable consideration and prompt allowance of this application is respectfully requested. In the event that there are any questions, or should additional information be required, please do not hesitate to contact Applicant's attorney at the number listed below.

Respectfully submitted,



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